

Formal Structured Training to Maximize Disaster Preparedness for BSN Students: Combining Formal Training with Medical Reserve Corps Training

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Abstract

Disasters can be natural, or man made in origin and require quick, efficient response. Nurses are often among the first responders. Disaster response training for nurses and student nurses helps ensure effective response and improve outcomes related to disaster. The author implemented a novel method of training for baccalaureate nursing students by combining Medical Reserve Corps training with structured two-day training at Federal Emergency Management Agency's Center for Domestic Preparedness.

Keywords : disaster, disaster preparedness, nursing students

Background

Disasters can occur on local, national, and global levels as natural or man-made events. Disasters may be infrequent in any one location; however, practice and drills are needed to help ensure efficient response (Achora & Kamanyire, 2016). Disaster training assists in the development of adequate response and mitigation plans, contributes to development of disaster related competency, and increases the number of volunteers to help with surge capacity (Goniewicz et al., 2021; Achora & Kamanyire, 2016). Nurses are often the first responders during a disaster (Goniewicz et al., 2021). Formal disaster training for student nurses is needed to assist in development of preparedness knowledge and competence.

Methods Used in Nursing Curricula to Promote Disaster Training and Competence**Course Content**

Data show that nurses often lack knowledge about disaster preparedness (Said & Chiang, 2019). Higher education schools and universities can promote disaster preparedness by supporting disaster training and implementing disaster training into curricula (Achora & Kamanyire, 2016). Disaster training in nursing curriculum may focus on development of skills in assessment, critical thinking, and providing adequate response in the face of disaster. Students who completed a course in disaster nursing possessed an understanding of the methods to help survivors of disaster in collaboration with interdisciplinary team members (Satoh, et al., 2018).

Simulation

Studies of training and simulated disaster drill training, including virtual reality simulation, show that study participants could respond during a drill and were able to conduct triage and perform procedures (Alim et al., 2015; Kim & Lee, 2020). Teamwork and team effectiveness improved (Alim et al., 2015). The literature indicated that nursing students who completed disaster preparedness training possessed the knowledge that could assist survivors of a disaster by performing an assessment of physical, mental, hygiene, and health education needs of victims on the frontlines during disasters (Satoh, et al., 2018). Providing simulation in partnership with local public health and emergency management agencies enhanced nursing students' knowledge of triage, teamwork, decision-making, and increased the pool of volunteers (Aebersold, 2018; Kim & Lee, 2020).

Innovative Combination of Training Methods for Nursing Students

Previous methods of training in disaster and disaster preparedness in the nursing program at a public liberal arts university in the southeastern United States included lecture and virtual disaster exercises. The author developed a Medical Reserve Corps (MRC) unit and implemented MRC training in the Community and Populations course for second semester nursing students. The same cohort of 54 students then attended a two-day unique and rigorous formal disaster training program at The Center for Domestic Preparedness (CDP) in Anniston, Alabama. The training was intensive and included multiple simulation scenarios.

Medical Reserve Corps

The Medical Reserve Corps (MRC) consists of a national network of local groups of volunteers engaging in local communities to strengthen public health, reduce vulnerability, build resilience, and improve preparedness, response, and recovery capabilities (Medical Reserve Corps [MRC], 2021). MRC volunteers augment local emergency response teams and Red Cross volunteer efforts. MRC course work located at the MRC Train website helps develop disaster training knowledge and preparedness. The students complete three online MRC training courses in incident command, management, and public health knowledge. They also complete a reflection assignment on the relevance and importance of the MRC training. The students also document the training and certificates on their resumes. In addition, each student is listed on a registry of state volunteers. This MRC training is easily incorporated into nursing course curricula and is an engaging, high impact educational practice.

The Center for Domestic Preparedness

The Center for Domestic Preparedness (CDP) provides advanced, all-hazards training to approximately 50,000 emergency responders annually from state, local, tribal, and territorial governments, as well as the federal government, foreign governments, and private entities (Federal Emergency Management Agency [FEMA], 2021). CDP is in Anniston, Alabama and is the only one of its kind in the United States. Nursing program leadership and faculty were eager to take advantage of this unique opportunity to have students participate in the sophisticated CDP training.

The didactic portion of the course included a full day's content on chemical, biologic, radiologic, nuclear, and explosive (CBRNE) disasters. In addition, training on narcotic overdose was included. All aspects of CBRNE disaster were thoroughly explored, including signs, symptoms, and management. The expert course faculty was interdisciplinary and included first responders, physician assistants, and doctoral prepared educators. A variety of training methods were used including lecture, video, simulation, and discussion. Students were evaluated and assessed on knowledge and successful obtainment of multiple competencies. The second day of training included additional content on hazardous material protective wear with demonstration. Each participant donned full hazardous material garb and participated in various simulation scenarios. The simulation scenarios included blast victim actors, hemorrhage, drug overdose, chemical burn, and biologic victim assessment with antidotes training.

Discussion

The students and faculty had a high level of excitement in anticipation of the CDP training and participated in the training together. The verbal comments and response to the training were overwhelmingly positive. The students were engaged during the entire training event and successfully completed the post-training exams. Students and prospective employers for nurses viewed the CDP training as a very valuable asset. The author collected data on students' disaster knowledge pre

and post CDP training as part of a future exploratory study on the value and feasibility of long-term inclusion of the training as part of the curriculum. The students were also engaged in the MRC training. Comments in the student MRC reflection assignments reflected their appreciation of exposure to this type of disaster training.

Disaster training for nursing students is a valuable part of the curriculum that prepares them to act as effective responders in those rare events. Expansion of traditional disaster training further enhances their knowledge and capabilities. Inclusion of all hazard training and MRC training as part of the curriculum should help augment disaster response in an actual emergency, enhance collaboration with agencies, and help improve post-disaster outcomes and recovery.

References

1. Achora, S., & Kamanyire, J. (2016). Disaster preparedness: Need for inclusion in undergraduate nursing education. *Sultan Quaboos University Med Journal*, 16(1), 15-19. DOI: 10.18295/squmj.2016.16.01.004
2. Goniewick, K., Goniewicz, M., & Burkle, F. (2021). Cohort research analysis of disaster experience, preparedness, and competency-based training among nurses. *Plos One* 16(1), e0244488. <https://doi.org/10.1371/journal.pone.0244488>
3. Said, N., & Chiang, V. (2020). The knowledge, skills competencies, and psychological preparedness of nurses for disaster: A systematic review. *International Emergency Nursing* 48, 100806. <https://doi.org/10.1016/j.ienj.2019.100806>
4. Satoh, M., Iwamitsu, H., Yamada, E., Kuribayashi, Y., Yamagami-Matsuyama, T., & Yamada, Y. (2018). Disaster nursing knowledge and competencies among nursing university students participated in relief activities following the 2016 Kumamoto earthquakes. *Sage Open Nursing*, 4, 1-9. <https://doi.org/10.1177%2F2377960818804918>
5. Alim, S., Kawabata, M., & Nakazawa, M. (2015). Evaluation of disaster preparedness training and disaster drill for nursing students. *Nurse Education Today*, 35(1), 25-31. DOI: 10.1016/j.nedt.2014.04.016
6. Kim, J. & Lee, O. (2020). Effects of a simulation-based education program for nursing students responding to mass casualty incidents: A pre-post intervention study. *Nurse Education Today*, 85, 104297. <https://doi.org/10.1016/j.nedt.2019.104297>
7. Aebersold, M. (2018). Simulation-based learning: No longer a novelty in undergraduate education. *OJIN: The Online Journal of Issues in Nursing*, 23(2), 1-14. <https://doi.org/10.3912/OJIN.Vol23No02PPT39>
8. Federal Emergency Management Agency (2021). Center for domestic preparedness. Retrieved from <https://cdp.dhs.gov/>

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